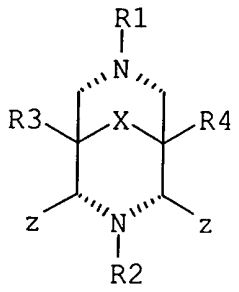
CLAIMS:

1. A bleaching composition comprising:

a) a monomer ligand, L, or transition metal catalyst thereof of a ligand having the formula (I):



(I)

wherein at least one of R1 and R2 is an optionally substituted tertiary amine of the form -C2-C4-alkyl-NR7R8, in which R7 and R8 are independently selected from the group consisting of straight chain, branched or cyclo C1-C12 alkyl, benzyl, the -C2-C4-alkyl- of the -C2-C4-alkyl-NR7R8 may be substituted by 1 to 4 C1-C2-alkyl, or may form part of a C3 to C6 alkyl ring, and in which R7 and R8 may together form a saturated ring containing one or more other heteroatoms, the other of R1 and R2 being independently selected from:

-C2-C4-alkyl-NR7R8 as defined above,
-C1-C24-optionally subsituted-alkyl,
-C6-C10-aryl, -C1-C4-alkyl-C6-C10-aryl,
a heterocycloalkyl: selected from the group consisting of: pyrrolinyl, pyrrolidinyl, morpholinyl, piperidinyl, piperazinyl, hexamethylene imine, 1,4-piperazinyl, tetrahydrothiophenyl, tetrahydrofuranyl, tetrahydropyranyl,

and oxazolidinyl, wherein the heterocycloalkyl may be connected to the ligand via any atom in the ring of the selected heterocycloalkyl,
a -C1-C6-alkyl-heterocycloalkyl, wherein the heterocycloalkyl of the -C1-C6-heterocycloalkyl is selected from the group consisting of: piperidinyl, piperidine, 1,4-piperazine,tetrahydrothiophene, tetrahydrofuran, pyrrolidine, and tetrahydropyran, wherein the heterocycloalkyl may be connected to the -C1-C6-alkyl via any atom in the ring of the selected heterocycloalkyl,
a -C1-C6-alkyl-heteroaryl, wherein the heteroaryl of the -C1-C6-alkylheteroaryl is selected from the group consisting of: pyridinyl, pyrimidinyl, pyrazinyl, triazolyl, pyridazinyl, 1,3,5-triazinyl, quinolinyl, isoquinolinyl, quinoxalinyl, imidazolyl, pyrazolyl, benzimidazolyl, thiazolyl, oxazolidinyl, pyrrolyl, carbazolyl, indolyl, and isoindolyl, wherein the heteroaryl may be connected to the -C1-C6-alkyl via any atom in the ring of the selected heteroaryl and the selected heteroaryl is optionally substituted by -C1-C4-alkyl, -C0-C6-alkyl-phenol, -C0-C6-alkyl-thiophenol, -C2-C4-alkyl-thiol, -C2-C4-alkyl-thioether, -C2-C4-alkyl-alcohol, -C2-C4-alkyl-amine, and a -C2-C4-alkyl-carboxylate;

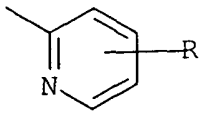
R3 and R4 are independently selected from hydrogen, C1-C4-alkyl, phenyl, electron withdrawing groups and reduced products and derivatives thereof;

X is selected from: C=O, a ketal derivative of C=O, a thioketal of derivative of C=O, and $-[C(R6)_2]_y-$ wherein y takes a value 0 or 1; each R6 is independently selected

from hydrogen, hydroxyl, O-C1-C24-alkyl, O-benzyl, O-(C=O)-C1-C24-alkyl, C1-C24-alkyl;

z groups are same heteroaromatic groups, selected from the group consisting of: pyridinyl; pyrimidinyl; pyrazinyl; triazolyl; pyridazinyl; 1,3,5-triazinyl; quinolinyl; isoquinolinyl; quinoxalinyl; imidazolyl; pyrazolyl; benzimidazolyl; thiazolyl; oxazolidinyl; pyrrolyl; carbazolyl; indolyl; and isoindolyl, and the selected Z is optionally substituted by -C1-C4-alkyl;

b) the balance carriers and adjunct ingredients.

2. A bleaching composition according to claim 1, wherein z is 

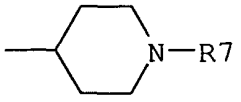
, wherein R is independently selected from: hydrogen, F, Cl, Br, hydroxyl, C1-C4-alkyl-, -NH-CO-H, -NH-CO-C1-C4-alkyl, -NH2, -NH-C1-C4-alkyl, and C1-C4-alkyl.

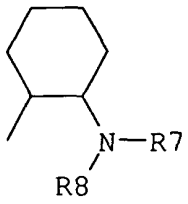
3. A bleaching composition according to claim 2, wherein R is H or -C1-C4-alkyl.

4. A bleaching composition according to claim 3, wherein R is H.

5. A bleaching composition according to claim 1, wherein z is selected from the group consisting of: benzimidazole, thiazole, and imidazole.

6. A bleaching composition according claim 1, wherein one of R1 and R2 is -CH3.

7. A bleaching composition according claim 1, wherein the -C2-C4-alkyl-NR7R8 is selected from the group consisting of: -CH2CH2-NR7R8, -CH2CMe2-NR7R8, -CMe2CH2-NR7R8, -CMeHCH2-NR7R8, -CMeHCMeH-NR7R8, -CH2CMeH-NR7R8, -CH2CH2CH2-NR7R8, -CH2CH2CMe2-NR7R8, -CH2CMe2CH2-NR7R8, -CH2CH2-NEt2, -CH2CH2-N(*i*-Pr)2, 

, and , 

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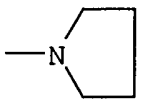
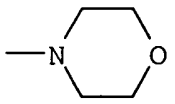
8. A bleaching composition according claim 1, wherein X is selected from: C=O, and -[C(R6)$_2$] wherein each R6 is independently selected from hydrogen, hydroxyl, C1-C24-alkoxy and C1-C24-alkyl.

9. A bleaching composition according claim 1, wherein X, is selected from C=O, C(OH)$_2$, *syn*-CH(OH) and *anti*-CH(OH).

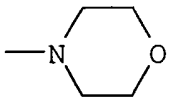
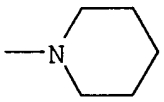
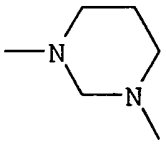
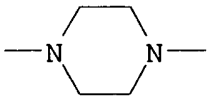
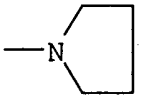
10. A bleaching composition according claim 1, wherein R7 and R8 are independently selected from the group consisting of -CH3, -C2H5, -C3H7, -C4H9, -C5H11, -C6H13, and -CH2C6H5.

11. A bleaching composition according according claim 1, wherein at least one of R7 and R8 is an optionally substituted alkyl chain of at least five carbon atoms.

12. A bleaching composition according to according to claim 7, wherein R7 and R8 are -CH3, -CH2CH3, -CH(CH3)2 or together form a optionally substituted cyclic structure selected from the group consisting of:  and  .

13. A bleaching composition according claim 1, wherein R1 is a C2-C4-alkyl-NR7R8.

14. A bleaching composition according claim 1, wherein R1 and R2 are independently C2-C4-alkyl-NR7R8.

15. A bleaching composition according claim 1, wherein -NR7R8 is selected from group consisting of:  ,  ,  ,  , and  .

16. A bleaching composition according claim 1, wherein R3 and R4 are selected from the group consisting of: -C(O)O-C1-C24-alkyl, -CH2OC(O)C1-C20-alkyl, benzyl ester, phenyl, benzyl, CN, hydrogen, methyl, and C1-C4-OR wherein R is selected from the group consisting of H, C1-C24-alkyl or C(O)-C1-C24-alkyl.

17. A bleaching composition according claim 1, wherein: R3 = R4.

18. A bleaching composition according claim 1, wherein R3 and R4 are selected from the group consisting of -CH2OH, and -C(O)O-C1-C6-alkyl.

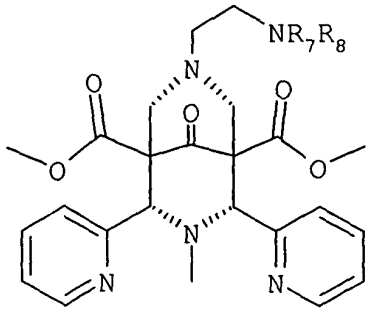
19. A bleaching composition according claim 1, wherein R3 and R4 are selected from the group consisting of: -C(O)-O-CH3, -C(O)-O-CH2CH3, and CH2OH.

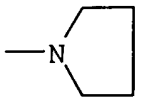
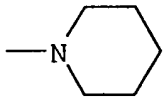
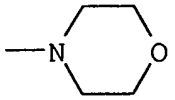
20. A bleaching composition according claim 1, wherein Y = 1.

21. A bleaching composition according claim 1, wherein X selected from the group consisting of: C=O, CH2, C(OH)2, *syn*-CHOR and *anti*-CHOR, wherein R is H, C1-C24-alkyl or C(O)-C1-C24-alkyl.

22. A bleaching composition according claim 1, wherein X is C=O or C(OH)2.

23. A bleaching composition according to claim 1, wherein the ligand is:



wherein -NR6R7 is selected from the group consisting of -NMe2, NEt2, -N(*i*-Pr)2,  ,  and  .

24. A bleaching composition according to claim 1, wherein the complex is of the general formula (A1):

$$[M_aL_kX_n]Y_m \qquad (A1)$$

in which:

M represents a metal selected from Mn(II)-(III)-(IV)-(V), Cu(I)-(II)-(III), Fe(II)-(III)-(IV)-(V), Co(I)-(II)-(III), Ti(II)-(III)-(IV), V(II)-(III)-(IV)-(V), Mo(II)-(III)-(IV)-(V)-(VI) and W(IV)-(V)-(VI);

X represents a coordinating species selected from any mono, bi or tri charged anions and any neutral molecules able to coordinate the metal in a mono, bi or tridentate manner;

Y represents any non-coordinated counter ion;

a represents an integer from 1 to 10;

k represents an integer from 1 to 10;

n represents an integer from 0 to 10;

m represents zero or an integer from 1 to 20; and

L represents a ligand as defined in claims 1 to 22, or its protonated or deprotonated analogue.

25. A bleaching composition according to claim 24, wherein M represents a metal selected from Fe(II)-(III)-(IV)-(V).

26. A bleaching composition according to claim 25, wherein M represents a metal selected from Fe(II) and Fe(III).

27. A bleaching composition according to claim 26, wherein the ligand is present in the form selected from the group consisting of [FeLCl]Cl and [FeL(H2O)](BF4)2.